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| EXAMINER |
|---|
| CHU, KIM KWOK |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2627 | |

DATE MAILED: 08/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/643,422 | TANAKA ET AL. | |
| | Examiner | Art Unit | |
| | Kim-Kwok CHU | 2627 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *8/19/2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

***Claim Objections***

1. Claims 1, 5, 9, 13, 19, 23, 26, 29, 33, 37 and 40 are objected to because of the following informalities:

(a) in Claim 1, line 6, the term "DSP" should be changed to --digital signal processor (DSP)--;

(b) similarly, in Claim 5, 9, 13, 29 and 33, the terms "DSP" should be changed to --digital signal processor (DSP)--;

(c) in the amended Claim 19, lines 1 and 2, the term "claim [17 or] 12" should be changed to --claim 17 [or 12]-- because Claim 19 cannot depends on Claim 12;

(d) in Claim 23, line 11, the term "a recorded level section" should be changed to --the recorded level section--;

(e) similarly, in Claim 26, line 7, the term "a recorded level section" should be changed to --the recorded level section--;

(f) in addition, in Claim 37, line 7, the term "recorded level detection means" should be changed to --the recorded level detection means--; and

(g) furthermore, in Claim 40, line 7, the term "recorded level detection means" should be changed to --the recorded level detection means--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> *A person shall be entitled to a patent unless –*
> *(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.*

3. Claims 1-42 are rejected under 35 U.S.C. § 102(e) as being anticipated by Heredia et al. (U.S. Patent 7,065,287).

4. Heredia teaches a sound recording/reproducing method having all the steps as recited in claims 1-16 and 29-36. For example, Heredia teaches the following:

(a) With respect to Claim 1, an attribute information (database) recording step of recording, onto a recording medium 30, attribute information (database) on sound data of a music piece that are to be recorded onto the recording medium 30 (Figs. 1, 3A and 4; column 6, lines 17-20); a rule table creation step of creating a rule table (audio formats) that associates the attribute information (database) and digital signal processor/DSP program parameters (audio controls such as coding and decoding process) each designating, to a digital

signal processor 58 of an amplifier apparatus, a sound field process or frequency characteristic process to be performed (Figs. 1 and 3A; column 6, lines 35-48; various audio formats such as MP3, MPEG-2 respective to each audio file is a rule table which controls the DSP parameters); a DSP program parameter (decoding) acquisition step of, at a time of reproduction when sound data of a music piece to be reproduced, read out from the recording medium 30, are to be outputted to the amplifier apparatus 54, 52, 56, acquiring, from the recording medium 30, the attribute information on the sound data of the music piece to be reproduced and acquiring, from the rule table, any of the DSP program parameters that corresponds to the attribute information (Figs. 1 and 3A; audio is reproduced based on its title and format from the database); and a DSP program parameter setting step of setting the DSP program parameter (decoding the audio formats such as MP3, AM, FM, SPDIF and MPEG-2 etc.), acquired from the rule table, in the digital signal processor of said amplifier apparatus (Fig. 1).

(b) With respect to Claim 2, when a change (different audio formats) has been made to the sound field process or frequency characteristic process of the amplifier apparatus 54, 52, 58 during reproduction of the sound data of the music piece, there is performed a learning (reconfiguring) of

registering (updating database) in the rule table, a DSP program parameter (audio format) indicative of the changed sound field process or frequency characteristic process in association with the attribute information of the sound data being currently reproduced (Figs. 1, 3A and 6H; audio file format can be displayed in the CD Guide as illustrated in Fig. 6H).

(c) With respect to Claim 3, the attribute information (database) on the sound data of the music piece includes music piece information identifying the music piece, album information identifying an album to which the music piece belongs, artist information identifying an artist of the music piece, and genre information identifying a musical genre of the music piece (Figs. 3A and 3B).

(d) With respect to Claim 4, the attribute information (database) on the sound data of the music piece includes compression scheme (MP3, MPEG-2) information indicative of a compression scheme with which the sound data are recorded on said recording medium (Figs. 3A and 3B).

5. Claims 5-8 have limitations similar to those treated in the above rejection, and are met by the references as discussed above as cited in Claims 1-4. Claim 5 however also recites the following limitations which are taught by the prior art of Heredia:

(a) With respect to Claim 5, processing start times (audio file sequence) each designating a time (playback order) when the process is to be started; any of the DSP program parameters that corresponds to the attribute information on the sound data and corresponds to any one of the processing start times that has coincided with an elapsed (file length) reproducing time of the sound data (Figs. 3A and 3B; playlist and file length are associated to each audio format stored in the database).

6. Apparatus claims 9-12 are drawn to the apparatus corresponding to the method of using same as claimed in claims 1-4. Therefore apparatus claims 9-12 correspond to method claims 1-4, and are rejected for the same reasons of anticipation as used above.

7. Apparatus claims 13-16 are drawn to the apparatus corresponding to the method of using same as claimed in claims 1-4. Therefore apparatus claims 13-16 correspond to method claims 1-4, and are rejected for the same reasons of anticipation as used above. Claim 13 however also recites the following limitations which are taught by the prior art of Heredia:

(a) With respect to Claim 13, processing start times (audio file sequence) each designating a time (playback order) when the process is to be started; any of the DSP program parameters that corresponds to the attribute information on the sound data and corresponds to any one of the processing start times that has coincided with an elapsed (file length) reproducing time of the sound data (Figs. 3A and 3B; playlist and file length are associated to each audio format stored in the database).

8. Apparatus claims 29-32 are drawn to the apparatus corresponding to the method of using same as claimed in claims 1-4. Therefore apparatus claims 29-32 correspond to method claims 1-4, and are rejected for the same reasons of anticipation as used above. Claim 29 however also recites the following limitations which are taught by the prior art of Heredia:

(a) With respect to Claim 29, a recording medium 30 on which sound data can be recorded and reproduced (Fig. 1).

9. Apparatus claims 33-36 are drawn to the apparatus corresponding to the method of using same as claimed in claims 1-4. Therefore apparatus claims 29-32 correspond to method claims 1-4, and are rejected for the same reasons of anticipation as used above. Claim 33 however also recites the following limitations which are taught by the prior art of Heredia:

(a) With respect to Claim 33, a recording medium 30 on which sound data can be recorded and reproduced (Fig. 1); and the DSP parameters correspond to any one of the processing start times that has coincided with an elapsed (file length) reproducing time of the sound data (Figs. 3A and 3B; playlist and file length are associated to each audio format stored in the database).

10. Heredia teaches a sound recording/reproducing method having all the steps as recited in claims 17-22. For example, Heredia teaches the following:

(a) With respect to Claim 17, a recorded level (audio parameters) recording step of, when a succession (playlist) of sound data (audio files) are to be recorded onto a recording medium 30, detecting a recorded level (audio parameters) of the succession of the sound data and recording, onto said recording medium 30, the detected recorded level in association with the succession of the sound data (Figs. 3A and 3B); and an output level control step of, when sound data read out from the recording medium 30 are to be output for reproduction, acquiring a recorded level (audio parameters) corresponding to a succession of the sound data to be reproduced and adjusting, on the basis of the acquired recorded level and a reference recorded level, an output level of the succession of the sound data to be reproduced (Fig. 1; audio is processed based on its audio parameters).

(b) With respect to Claim 18, a predetermined value (audio parameters such as amplification gain) is set as the reference recorded level.

(c) With respect to Claim 19, the reference recorded level (gain) is determined on the basis of a plurality of recorded levels corresponding to a plurality of successions of

sound data to be reproduced (Fig. 1; reference gain is the predetermined gain used in the audio subsystem 22).

11. Claims 20-22 have limitations similar to those treated in the above rejection, and are met by the references as discussed above as cited in Claim 17-19. Claim 20 however also recites the following limitations which are taught by the prior art of Heredia:

(a) With respect to Claim 20, a volume control step of, when sound data read out from the recording medium 30 are to be output to an amplifier apparatus 22 having a volume control 150, 152, 164 capable of being controlled from outside (Fig. 2B).

12. Heredia teaches a sound recording/reproducing method having all the steps as recited in claims 23-28 and 37-42. For example, Heredia teaches the following:

(a) With respect to Claim 23, a recording medium 30 on which sound data can be recorded and reproduced (Fig. 1; column 5, lines 65-67); a recorded level (format) detection section that, when a succession (selected files) of sound data are to be recorded onto the recording medium 30, detects a recorded level of the succession of the sound data (Fig. 1; multimedia files in form of a database are stored in the medium 30); the recorded level detection section that records the recorded level, detected by the recorded level detection section, onto the recording medium 30 in association with the succession of the sound data (Fig. 1; selected audio files and its format are stored); and a recorded level acquisition section (audio processing) that, at a time of reproduction when sound data read out from the recording medium 30 are to be outputted, acquires a recorded level (format) corresponding to a succession of the sound data to be reproduced (Fig. 1; audio files with various formats are being processing/decoding); and an output level control section 150, 152, 164 that adjusts, on the basis of the acquired recorded level and a reference recorded level, an output level of the succession of the sound data to be reproduced (Figs. 1 and 2b)

(b) With respect to Claim 24, a predetermined value (audio parameters such as amplification gain) is set as the reference recorded level.

(c) With respect to Claim 25, the reference recorded level (gain) is determined on the basis of a plurality of recorded levels corresponding to a plurality of successions of sound data to be reproduced (Fig. 1; reference gain is the predetermined gain used in the audio subsystem 22).

13. Claims 26-28 have limitations similar to those treated in the above rejection, and are met by the reference as discussed above as in Claims 23-25. Claim 26 however also recites the following limitations which are taught by the prior art of Heredia:

(a) With respect to Claim 26, a volume control section 150, 152, 164 that controls the volume control of the amplifier apparatus on the basis of acquired recorded level and a reference recorded level (Fig. 2B).

14. Claims 37-39 have limitations similar to those treated in the above rejection, and are met by the reference as discussed above as cited in Claims 23-25.

15. Claims 40-42 have limitations similar to those treated in the above rejection, and are met by the reference as discussed above as cited in Claims 23-25. Claim 40 however also recites the following limitations which are taught by the prior art of Heredia:

(a) With respect to Claim 40, a volume control section 150, 152, 164 that controls the volume control of the amplifier apparatus on the basis of acquired recorded level and a reference recorded level (Fig. 2B).

***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hamada et al. (6,792,007) is pertinent because Hamada teaches a multimedia storing apparatus having a list of the stored files.

Kim (6,879,843) is pertinent because Kim teaches a multimedia storing apparatus having a list of the stored files.

Wachi (5,880,386) is pertinent because Wachi teaches a multimedia storing apparatus having a list of the stored files.

Kramer (4,868,869) is pertinent because Kramer teaches a digital signal processor having a look up table.

17. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch, can be reached on (57) 272-7589.

The fax number for the organization where this application or proceeding is assigned is (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9191 (toll free).

Kim-Kwok CHU

KC 8/9/06

Examiner AU2627
August 9, 2006

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